

REMARKS

The specification has been amended to provide a cross-reference to the previously filed International Application.

The claims have been amended to delete improper multiple dependencies and to place the application into better form for examination. Entry of the above amendments is earnestly solicited. An early and favorable first action on the merits is earnestly solicited.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: VERSION WITH MARKINGS TO SHOW CHANGES MADE

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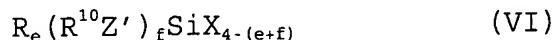
The claims have been amended as follows:

4. (Amended) Use of the silanes according to claim 1 [or 2] for the preparation of silicic acid polycondensates or of silicic acid heteropolycondensates by hydrolytic condensation of one or more hydrolytically condensable compounds of silicon and optionally other elements from the group B, Al, P, Sn, Pb, the transition metals, the lathanides and the actinides, and/or precondensates derived from the above-named compounds, optionally in the presence of a catalyst and/or a solvent, by the action of water or moisture, characterized in that 5 to 100 mol-% based on monomeric compounds of the hydrolytically condensable compounds are selected from silanes of the general formula I:



in which the radicals are as defined in claim 1.

6. (Amended) Use according to claim 4 [or 5], characterized in that one or more compounds of the general formula VI are used, optionally in precondensed form, as further hydrolytically condensable compounds of silicon:



in which the radicals and indices have the following meaning:

X = hydrogen, halogen, hydroxy, alkoxy, acyloxy, alkylcarbonyl, alkoxycarbonyl or NR''_2 ;

R = alkyl, alkenyl, aryl, alkylaryl or arylalkyl;

R'' = hydrogen, alkyl or aryl;

R^{10} = alkylene or alkenylene, these radicals being able to be interrupted by oxygen or sulphur atoms or -NH groups;

Z' = halogen or an optionally substituted amino, amide, aldehyde, alkylcarbonyl, carboxy, mercapto, cyano, alkoxy, alkoxycarbonyl, sulfonic acid, phosphoric acid, acryloxy, methacryloxy, epoxy or vinyl group;

e = 0, 1, 2 or 3;

f = 0, 1, 2 or 3, with $e + f = 1, 2$ or 3 .

7. (Amended) Use according to [one of claims 4 to 6] claim 4, characterized in that one or more compounds of the general formula VIII are used, optionally in precondensed form, as further hydrolytically condensable compounds of silicon:



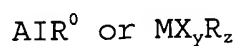
in which the radicals X and R have the meaning given in claim 6 and the other radicals and indices have the following meaning:

Y = a substituent which contains a substituted or unsubstituted 1,4,6-trioxaspiro-[4,4]-nonane radical;

n = 1,2 or 3;

m = 1,2 or 3, with $n + m \leq 4$.

8. (Amended) Use according to [one of claims 4 to 7] claim 4, characterized in that one or more aluminum, titanium or zirconium compounds, soluble in the reaction medium, of the formula:



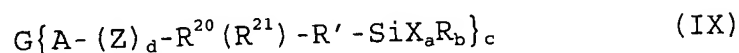
are used, optionally in precondensed form, as further hydrolytically condensable components, in which M stands for titanium or zirconium, the radicals R, R^0 and X are the same or different, R^0 represents halogen, hydroxy, alkoxy or acyloxy, y is an integer from 1 to 4, in particular 2 to 4, z stands for 0,1,2 or 3, preferably for 0,1 or 2 and X and R are as defined in claim 6.

9. (Amended) Use according to [one or more of claims 4 to 8]claim 4, characterized in that one or more initiators are added to the polycondensate, and the polycondensate cures thermally, photochemically, in covalent-nucleophilic or by redox-induction.

10. (Amended) Use according to [one or more of claims 4 to 8]claim 4, characterized in that one or more radically and/or ionically polymerizable components are added to the polycondensate before polymerization.

13. (Amended) Use according to claim 11 [or 12], characterized in that the polymerisate is hydrolytically condensed, optionally in the presence of further, hydrolytically condensable compounds of silicon and optionally other elements from the group B, Al, Sn, Pb, the transition metals, the lanthanides and the actinides, and/or precondensates derived from the above-named compounds by the action of water or moisture, optionally in the presence of a catalyst and/or a solvent.

15. (Amended) Use according to [one of claims 4 to 10]claim 4, characterized in that one or more compounds of the general formula IX are used, optionally in precondensed form, as further condensable compounds of silicon:



in which the radicals and indices have the following meaning:

X = hydrogen, halogen, hydroxy, alkoxy, acyloxy,
alkylcarbonyl, alkoxycarbonyl or NR''_2 ;

R = alkyl, alkenyl, aryl, alkylaryl or arylalkyl;

R' = alkylene, alkenylene, arylene, arylenealkylene or
alkylenearylene in each case with 0 to 10 carbon atoms,
these radicals being able to be interrupted by oxygen
and sulphur atoms or by amino groups;

R'' = hydrogen, alkyl or aryl;

G = a straight-chained or branched organic radical with at
least one C=C double bond and 4 to 50 carbon atoms;

A = O, S or NH for $d = 1$ and

Z = CO and

R^{20} = alkylene, arylene or alkylenearylene in each case
with 1 to 10 carbon atoms, these radicals being
able to be interrupted by oxygen and sulphur atoms
or by amino groups, and

R^{21} = COOH;

or

A = O,S or NH for d = 1 and

Z = CO and

R²⁰ = alkylene, arylene, alkylenearylene in each case with 1 to 10 carbon atoms, these radicals being able to be interrupted by oxygen and sulphur atoms or by amino groups, and

R²¹ = H;

or

A = O,S,NH or COO and d = 1 and

Z = CHR, with R equal to H, alkyl, aryl or alkylaryl, and

R²⁰ = alkylene, arylene or alkylenearylene in each case with 1 to 10 carbon atoms, these radicals being able to be interrupted by oxygen and sulphur atoms or by amino groups, and

R²¹ = OH;

or

A = O,S,NH or COO for d = 0 and

R²⁰ = alkylene, arylene or alkylenearylene in each case with 1 to 10 carbon atoms, these radicals being

able to be interrupted by oxygen and sulphur atoms or by amino groups, and

$$R^{21} = OH;$$

or

$$A = s \text{ for } d = 1 \text{ and}$$

$$Z = CO \text{ and}$$

$$R^{20} = N \text{ and}$$

$$R^{21} = H;$$

$$a = 1, 2 \text{ or } 3;$$

$$b = 0, 1 \text{ or } 2;$$

$$a+b = 3;$$

$$c = 1, 2, 3 \text{ or } 4;$$

$$d = 0 \text{ or } 1.$$

(Rev. 11/13/01)